InterPlot Organizer for MicroStation V8

InterPlot Organizer for MicroStation V8 is an MDOT customized tool for bulk printing hardcopy output or producing PDF files from standardized sets of MicroStation design files. InterPlot Organizer should be used throughout the lifecycle of your project adding sheets as your project grows to generate laser check prints (or mylars for non eProposal jobs). InterPlot Organizer easily meets eProposal requirements by converting existing laser and Mylar plot sets to PDF format.

Existing projects in MicroStation J format must be upgraded to MicroStation V8 before exporting the files to PDF format.

A series of flow diagrams for using Organizer may be found in **Main IPLOT Organizer Work Flow**. Detailed instructions for creating a plot sets from MicroStation J and V8 files are below. These instructions are to used for both print/plot and eProposal PDF file creation.

A couple of things to consider prior to using Iplot Organizer for MicroStation V8:
- If the design files are in MicroStation J format, convert them to MicroStation V8 (Refer to the instructions found in **Converting MicroStation J Files to V8**) This allows full text searching and level recognition in Adobe PDF
- PDF output requires printer **\\mdot_plot\OrganizerPDF** EVERYONE will have to create this queue on your computer (*this procedure only needs to be done one time*) Do the following:
    a. Open a Command Prompt window from a desktop icon or from:
       Start->Programs->Accessories->Command Prompt
    b. Type in: **con2prt /c \\mdot_plot\OrganizerPDF**
    c. Exit the Command Prompt window

User Tips and Recommendations – The following points have been documented to cause frustration for first time users - Please Read
- Make sure your M:\ drive points to mdot_XXXX\mdot_v8 - <u>EVEN if your files are MicroStation J</u>
- MDOT CADD standards must be adhered to or you will get miserable results from Iplot Organizer.
- MicroStation J files upgraded to MicroStation V8 still require you to apply MicroStation J Iplot Organizer setting files. **Why?** Because your elements are still on J levels …. Level26, Level33
- Plot shapes must be on the appropriate level and line style for each MicroStation application:
    a. Level 63 for MicroStation J
    b. plot_shapes for MicroStation V8.
- DELETE ALL extra plot shapes. Scratch sheets will still process unless the shape is deleted
- Reference file logical names must point to the proper location of the reference file attachments
- Modifying or attaching new reference files requires your to update the plot by going into the General Properties and selecting Update From Design File
- Existing plots will not pick up new sheet cells added into a MicroStation file. You will have to delete the plot and re-create it to see the new sheet.
- MicroStation files that contain multiple sheet cells will render out sequentially number plots to be renamed logically. The plots must be deleted and re-created when changing output types
- Organizer setting files and pen table files reside on your local m:\ drive.
- All Raster Layers that are in colors must changed to the color zero for printing or final PDF
- Do Not store InterPLot Plot Set (ips) files on Netware servers. Use ProjectWise or D:\work
- **ALWAYS keep these three foundational factors in mind when using Iplot Organizer:**
    1. **What was the original version of your design files – J or V8?**
    2. **Where are the files located – mapped drive or ProjectWise?**
    3. **What are your output objectives – Laser Printing? Full size PDF ?**

__The version of your working files and the desired output type drives your selection of setting files and data entry into Iplot Organizer. For example, if you have MicroStation J files or J files upgraded to MicroStation V8 and want half size output you MUST apply setting files from the Design_J_laser folder. Fullsize printing or fullsize PDF generation requires Design_J_fullsize setting files.__

If you have MicroStation J files or MicroStation J files upgraded to V8 you MUST assign setting files from the Design_J_fullsize or laser folders. Original V8 files will need to use the setting files dedicated for V8 output like Design_V8_laser & PDF or Design_PDF_fullsize

If your files are in ProjectWise you MUST log into ProjectWise from within the Organizer window prior to creating plots. Apply the appropriate setting file to the sheet type selected. Or use As_Saved if you want to utilize the Saved Setting look of your design file.

__Importing Organizer documents (IPS and DGN files) into ProjectWise__ **– IPS files built outside of ProjectWise will not work after you drop the IPS and DGN's into ProjectWise. You must check the IPS file out of ProjectWise, log into ProjectWise from the Iplot Organizer interface, and then re-link the data one file at a time. It is recommended to import the DGN files into ProjectWise and __then__ create the IPS container.**
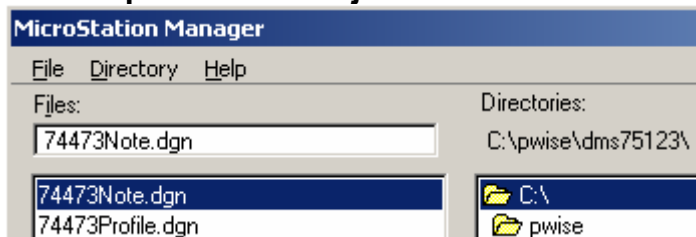
Converting MicroStation J Files to V8

1. If the MicroStation J files are in ProjectWise:
    a. Open ProjectWise Explorer and log in
    b. Locate and select the design files to be converted
    c. Copy Out these design files

NOTE: If your MicroStation J files are spread out in the ProjectWise folder structure it is recommended to copy all your MicroStation J files to the Proposal Preparation **folder and copy them out of ProjectWise from there. Note what Folder ID number is assigned to the Proposal Preparation folder and navigate to your local machine d:\pwise\username\dmsfolderID#**

File Name	Folder Id	
74473Legend.dgn	75123	
74473Note.dgn	75123	
74473Note.dgn	75123	

2. Open MicroStation V8
3. In the MicroStation Manager window click **File->Upgrade Files to V8…**
4. Locate and select all of the MicroStation J design files to be converted and click **Add**
    Files copied out of ProjectWise will be located in d:\ or C:\pwise\username\dmsfolderID#

```
MicroStation Manager
 File  Directory  Help
Files:                          Directories:
74473Note.dgn                   C:\pwise\dms75123\

74473Note.dgn                   📁 C:\
74473Profile.dgn                📁 pwise
```

5. Click **Done**
6. If backups of the original J files are desired:
    a. Click **Browse**
    b. Locate a folder for backup J files
    c. Click **OK**
7. Click **OK**

8. If any design files are Log Jobs:
    a. Open the design files in MicroStation V8
    b. Change the settings as follows:
        i. level to **PLOT_SHAPES** (for files converted from MicroStation J to V8 type in **Level 63**)

        ii. line weight to **0**
        iii. color to **0**
        iv. line style to **4**
    c. Place a shape at the appropriate fence points for plotting
    d. Exit MicroStation
9. If any design files were created in IRASB:
    a. Open the design files in MicroStation V8
    b. Click **File->Raster Manager**
    c. Double click on a raster file
    d. Click the **Display/Print** tab
    e. Check the Print option
    f. Click **OK**
    g. Repeat steps c-f for all remaining raster files in the list
    h. Exit MicroStation
10. If the files need to be added back into ProjectWise:
    a. Open an Explorer window and select the design files
    b. Drag the files to the appropriate ProjectWise vault location
    c. Change the properties of any IRASB files:
        i. Select all IRAS B files from the list
        ii. Right click and select **Properties…**
        iii. Go to the **General** tab
        iv. Change the Application value to **IRASB for V8**
        v. Click **OK**
    d. Change the properties of the MicroStation V8 files:
        i. Select all MicroStation V8 files
        ii. Right click and select **Properties…**
        iii. Go to the **General** tab
        iv. Change the Application value to **MicroStation V8**
        v. Change Workspace Profile to the appropriate workspace
        vi. Click **OK**

Iplot Organizer Step by Step Instructions

1. Open Organizer from:
   Start->Programs->InterPlot Utilities->InterPlot Organizer for MicroStation V8.
2. In the Pre-IPLOT Organizer Setup window:

Pre-IPLOT Organizer Setup

Printer Name: \\mdot_plot\OrganizerPDF   Settings: Design_V8_laser&PDF   OK
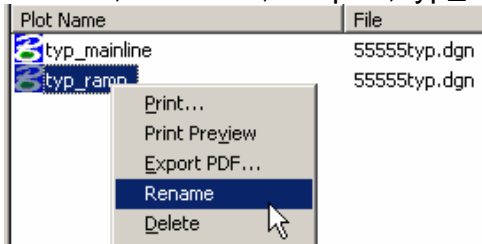
    a. Select the Printer Name for the appropriate output
    b. Select the setting file category (this determines the location Organizer will use to look for settings files) **for files converted from MicroStation J to V8, use the appropriate Design_J_.... Settings selections.**
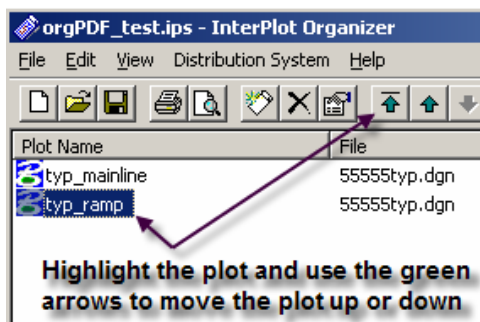   c. Click **OK**.

3. If the design files or a previously created IPS file are already in ProjectWise (PW):
    a. Click **File->ProjectWise Login…**
    b. Enter the correct Username and Password
    c. Click **Log in**
    d. If a previously existing IPS file is being used:
        i. Click or **File->Open…**
        ii. Locate and select the desired IPS file
        iii. Click **Open**
        iv. If changes to the output are required (for instance changing from half-size to full-size output, or to PDF) use the instructions **Changing Between Output Types**.
4. If new design files need to be added to a plot set:
    a. Click or **File->Create Plots…**
    b. Click **Add**
    c. Locate and select all design files which need the same type of setting file
    d. Click **Open**
    e. Click **Browse**
    f. If a ProjectWise window for Select a Setting File comes up click **Cancel**
    g. Select correct setting file to be applied to the selected design files (Refer to **InterPlot Organizer Settings Files** for more information)
    h. Click **Open**
    i. Click **OK**
    j. Repeat steps a-i above for each additional set of design files to be added to the plot set

THINGS TO DO PRIOR TO CREATING A PDF FILE for eProp

Renaming Plots- Right after creating the plots you must rename each plot. The name used should represent the type of sheet. Keep in mind the name used will become the PDF bookmark. This will help keep the confusion to a minimum where multiple sheets are generated from a single MicroStation file. You do not need to include the job number in the name. For example: title, 625rem, 625const, 625prof, typ_mainline, typ_ramp
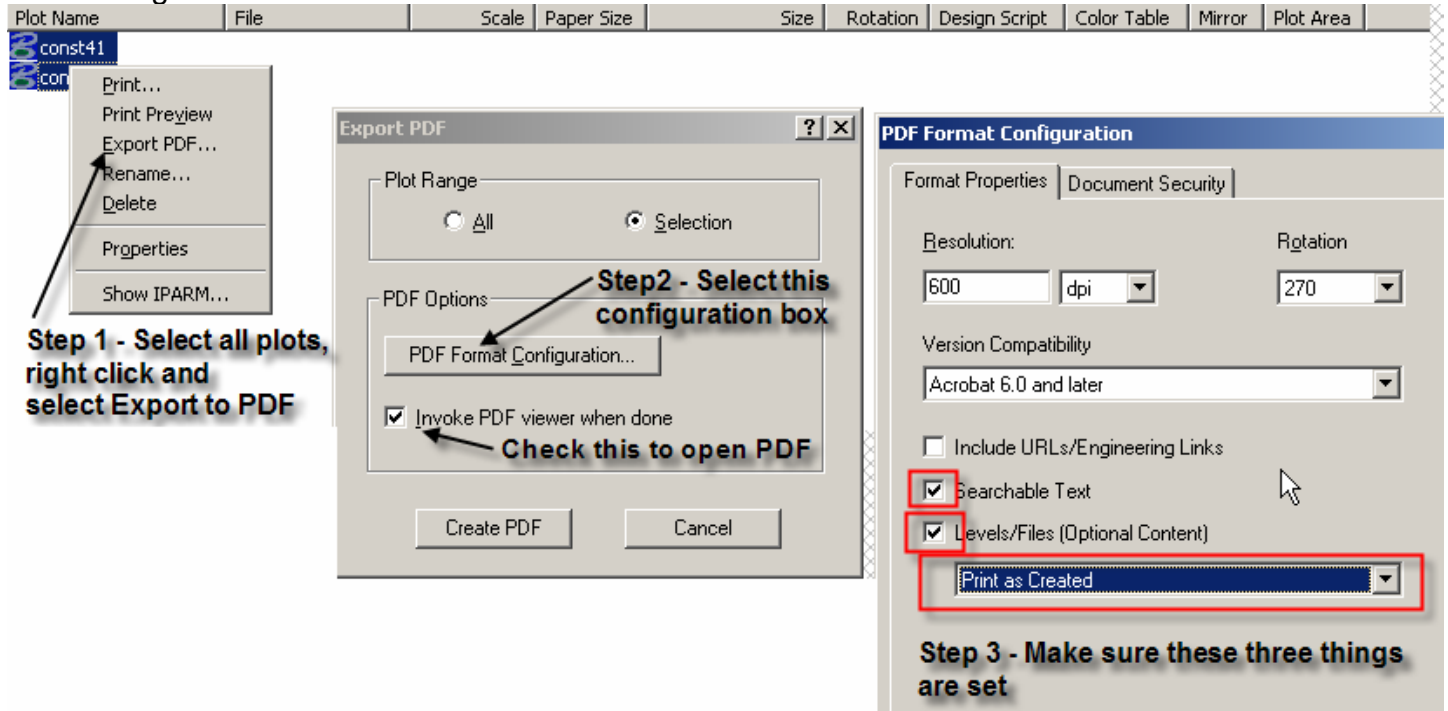

Organizing the Plot Set - Make sure the Organizer file lists the plots from top to bottom just like a set of plans would be. Highlight the sheets and use the green up/down arrows.

Now you are ready to create your PDF plan set …

5. If a PDF file is to be created:
    a. Select the files to be exported to PDF
    b. Click **File->Export PDF…** or Right click on the selected files and select **>Export PDF**
    c. Click **PDF Format Configuration…**
    d. Make sure Searchable Text and Levels/Files are checked
    e. Make sure the Rotation value is **270**
    f. Click **OK**
    g. Click **Create PDF**

NOTE: eProposal PDF plan file sets MUST be named planhalf.pdf and planfull.pdf and be placed in this folder ⊟ 📁 6 - Letting Plans and Proposal **in ProjectWise. No Exceptions !**

    h. If a ProjectWise window to Save PDF File opens:
        v. If the PDF file should be saved into ProjectWise:
            1. Fill in the appropriate fields
            2. Click **OK**
            3. Proceed to step 8
        vi. If the PDF file should be saved to the local drive or to a server location:
            1. Click **Cancel**
            2. Locate the drive/folder for the PDF file
            3. Type in a filename for the PDF file
            4. Click **OK**
            5. proceed to step 7
    i. Locate the drive/folder for the PDF file and type in a filename for the PDF file
    j. Click **OK**
6. If the files are to be sent to a printer:
    a. Select the files to be printed
    b. Click 🖨 or **File->Print…**
    c. Click **OK**

7. To save the IPS file:

    a. Click 🖫 or **File->Save… NOTE : Do NOT save the IPS file to a Netware drive. It has been known to drastically slow down the opening of the IPS file. Save the IPS in ProjectWise or to your local D:\work folder.**

    b. If the plot set information has not been previously saved to an IPS:

        i. Select a location and type in a filename for the IPS file
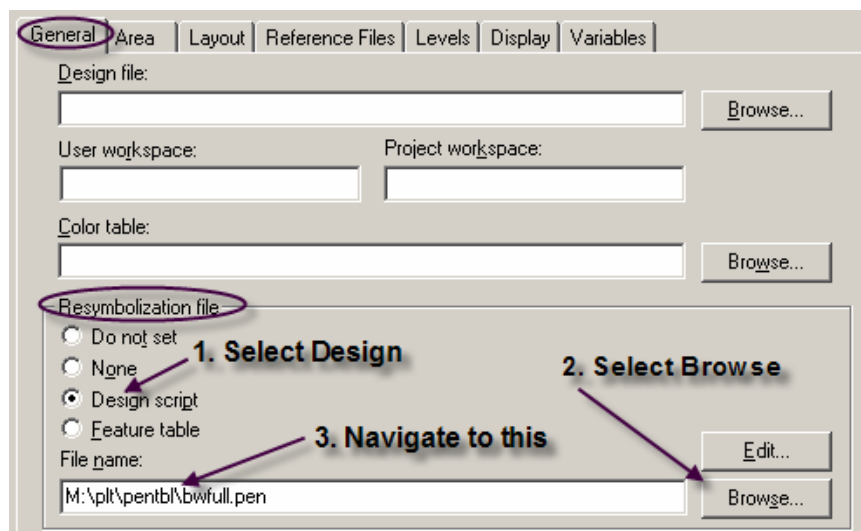
        ii. Click **OK**

Changing Between Output Types

Your existing Organizer file can be tweaked to generate output to other printers/plotters or to meet eProposal requirements. Usually laser printing happens first then Mylar or eProposal.

NOTE:
If a MicroStation file contains multiple sheet cells you must remove the plot and re-create it applying the new objective parameters.

1. Make any changes to the output device:

    a. At the bottom center of the Organizer window check the Printer: value. If this is correct for the desired output proceed to step 2

    b. Click **File->Print Setup…**

    c. Select the correct printer

    d. Click **OK**

2. Select Plots from the list that are to be changed

3. Click 🖼 or **Edit->Properties…**

4. If the output is changing to 24"x36" size:

    a. Go to the **General** tab

        i. In the Resymbolize section click **Design Script**

        ii. Click on Browse and Select the design script **m:\plt\pentbl\bwfull.pen**

        iii. Click on **Open**

    b. Go to the **Area** tab **(skip to step 4c for special details files)**:

        i. Click **Describe Plot Shape** (or **Find Plot Shape** for single plots)

            1. Click **Add**

            2. Type in **PLOT_SHAPES** (for files converted from MicroStation J to V8 type in **Level 63**)

3. Click **OK**
ii. In the Colors field type in **0**
iii. In the Weights field type in **0**
iv. In the Styles field type in **6**
v. **Select OK**

c. Go to the **Layout** tab:
   i. **If the output will be to paper or mylar**:
      1. Change the Paper Size to **fullsizesheet**
      2. In Rotation Angle type in **90**
      3. In Size and Scale click **Maximize**
      4. if the output will be to mylar, in the Mirror section select **About X Axis**
   ii. **If the output will be to PDF:**
      Remember: **You must remove and re-create any multiple sheet plot files (see note in red below.**
      1. Change the Paper Size to **Arch D**
      2. In Rotation click **Align X**
      3. In Size and Scale click **Maximize**
d. Click **OK** and proceed to step 6

5. If **the output is changing to 11x17 size**:
   a. Go to the **General** tab
      i. In the Resymbolize section click **Browse and then Cancel to ProjectWise**
      ii. Select the design script **m:\plt\pentbl\bwhalf.pen**
      iii. Click on **Open**
   b. Go to the **Area** tab **(skip to step 5c for special details files)**:
      i. Click **Describe Plot Shape…**
         1. Click **Add**
         2. Type in **PLOT_SHAPES** (for files converted from MicroStation J to V8 type in **Level 63**)
         3. Click **OK**
      ii. In the Colors field type in **0**
      iii. In the Weights field type in **0**
      iv. In the Styles field type in **5**
   c. Go to the **Layout** tab:
      i. Change the Paper Size to **11x17**
      ii. In Rotation Angle type in **Align X**
      iii. In Size and Scale select **Maximize**
   d. Click **OK**
6. **All plots created from multiple sheet cells in a single DGN must be removed and re-created prior to creating your PDF file. (We have found that IPLOT Organizer does not recognize multiple sheets in a single design file when changing between output types.) To remove and re-create the plots do the following:**
   a. Select all files with multiple sheets
   b. To delete a plot from the set Click ☒ or **Edit->Delete**
      i. Replace the design files by starting with Step 4 of the Step by Step instructions for using Iplot Organizer. Make sure you assign proper setting files to meet your objective. If you do not your results will be garbage.

InterPlot Organizer Settings Files

Settings files are applied to design files in Organizer to select default setup options. Selections may include paper sizes, design scripts (formerly called pen tables), plotting scales or output sizes, rotation or orientation, color tables, levels to turn on/off, and to specify shapes found in the design file which will define the "fence" for creating plots. Custom MicroStation J and V8 settings files have been created for many standard outputs used for plans in road and bridge design and traffic and safety.

Settings files are found in folders named by discipline, MicroStation version, or output type on shared CAD drives. Many of them are named similarly because they specify the same levels on and off. When the InterPlot Organizer for MicroStation V8 application is opened, the introductory window provides options to select the correct folder for the settings files. (Refer to Table 1 for settings file folder descriptions.)

Table 1

Settings File Folder	Primary Users or Applications	Description of Usage
Design_J_fullsize	Road, Bridge, Utilities, e-Proposal	MicroStation J files and Files converted from MicroStation J to V8 for B&W output to 24"x36" paper or PDF
Design_J_laser	Road, Bridge, Utilities, e-Proposal	MicroStation J files and Files converted from MicroStation J to V8 for B&W output to 11"x17" paper and PDF files, and 8 ½ "x11" log jobs
Design_PDF_fullsize	e-Proposal	MicroStation V8 files for B&W output to 24"x36" PDF files
Design_V8_color	Specialty Output	Color MicroStation V8 files to all output sizes
Design_V8_fullsize	Road, Bridge, Utilities	MicroStation V8 files for B&W output to 24"x36" paper
Design_V8_laser&PDF	Road, Bridge, Utilities, e-Proposal	MicroStation V8 files for B&W output to 11"x17" paper and PDF files, and 8 ½ "x11" log jobs
Design_V8_mylar	Road, Bridge, Utilities	MicroStation V8 files for B&W output to 24"x36" mylar
Mapping	Mapping & Graphics	Act 51 files
Traffic_J	Traffic	MicroStation J to all output sizes
Traffic_v8_fullsize	Traffic	MicroStation V8 output to 24"x36" paper
Traffic_V8_laser	Traffic	MicroStation V8 output to 11"x17" paper

Settings file names describe the group of levels that will be plotted (i.e. a file named construction specifies that all levels that are typically plotted for a road construction sheet will be turned on). In some cases, a single settings file is appropriate for more than one class of design file. For example **assaved.set** can be used for any single sheet type that has had MicroStation command Save Settings applied to display the file correctly upon opening.

- The assaved.set file can NOT be applied on files that have more than one sheet type in a single MicroStation file.
- Special Detail sheets and Standard Detail sheets can utilize the assaved.set file very effectively.
- Use as_saved.set for MicroStation J files (**even if upgraded to V8**)
- Use assaved.set for newly created MicroStation V8 files.

To see which named levels are turned on for each setting file please refer to **Design Organizer Levels.xls** and **Traffic Organizer Levels.xls** These Excel spreadsheets can be found in the following ProjectWise folder: Reference Documents/V8 CAD Guides/Print/Plot. . (exceptions to the spreadsheets are noted in Table 2.)
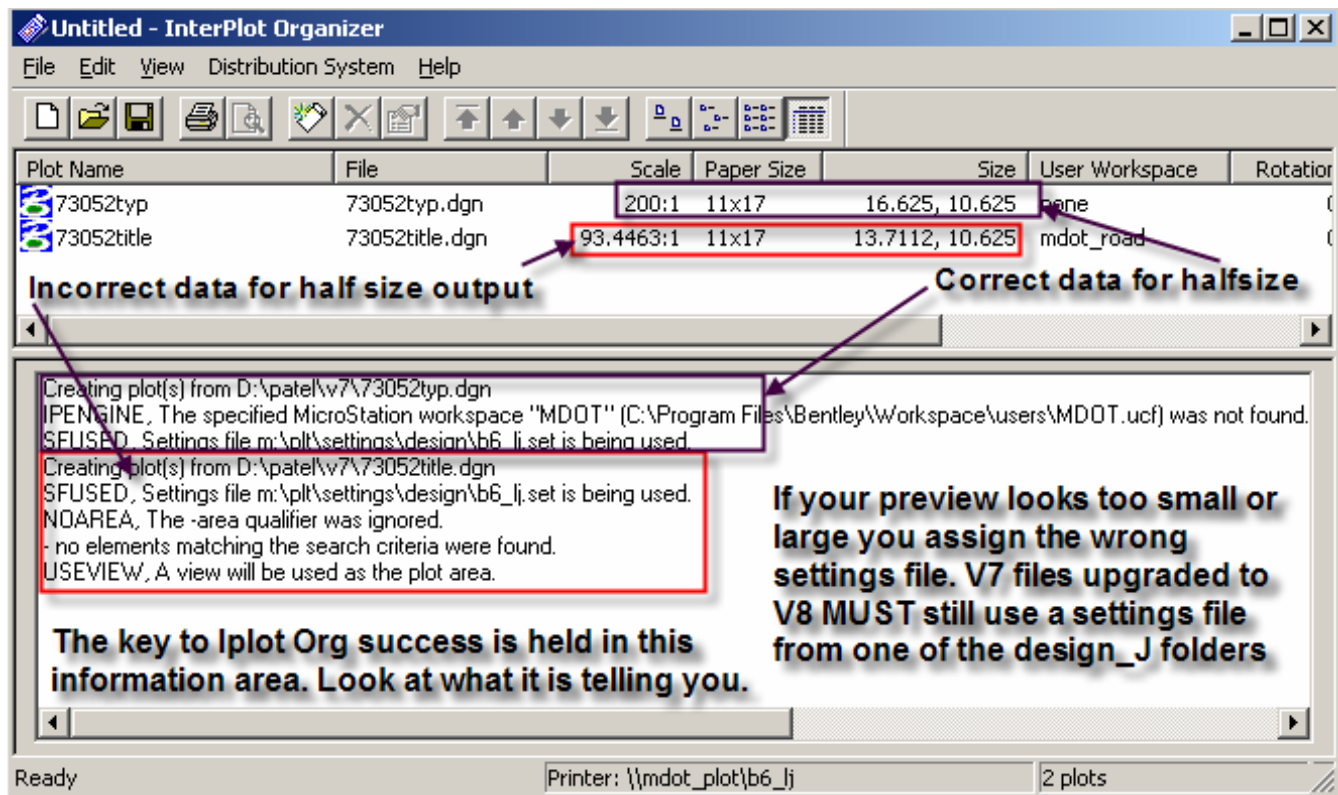
<div align="center">

Table 2

</div>

Folder Name	Setting file	Description
Design_J_xxx	as_saved	All levels as saved from MicroStation Save Settings command except level63 Print/Plot Shapes
Design_V8_xxx	assaved	All levels as saved from MicroStation Save Settings command except PLOT_SHAPES, and PRINT_SHAPES
Design_V8_xxx	bridge	All **V8 Bridge** levels - Level 1 through Level 62
Traffic_V8_laser	tco	all **Traffic** levels except PLOT_SHAPES and PRINT_SHAPES
Traffic_V8_laser	typicals_stds_pdf8	all **Traffic** levels except BORDER_SIGNAL_CON, SCRATCH_LEVEL_A, PLOT_SHAPES, PRINT_SHAPES

Trouble Shooting

Information displayed in the Organizer dialog box is your key to success. Look at how Iplot Organizer processed **your** plots based on **your** selections. Remember the three foundational Iplot Organizer factors ?

1. **What was the original version of your design files – J or V8?**
2. **Where are the files located – mapped drive or ProjectWise?**
3. **What are your output objectives – Laser Printing? Full size PDF ?**

- You MUST be thinking about the three factors - MicroStation **Version**, data **Location**, and printing or PDF **Objective** from the moment you start the application.
- Data in the application dialog box output columns must be aligned with meeting your objective. Weird scales and sizes are warnings of impending doom. If the scale and size values do not make sense for achieving your printing or PDF objective you assigned the wrong settings file OR have the wrong print queue attached.
- **All MicroStation files must contain correct plot shapes. Plot shape requirements are contained in this document.**
- Look in the lower portion of the application window for errors finding plot shapes. Please see the example shown on the next page

Screenshot of InterPlot Organizer window with annotations:

Untitled – InterPlot Organizer

File   Edit   View   Distribution System   Help

Plot Name	File	Scale	Paper Size	Size	User Workspace	Rotation
73052typ	73052typ.dgn	200:1	11x17	16.625, 10.625	none	
73052title	73052title.dgn	93.4463:1	11x17	13.7112, 10.625	mdot_road	

Incorrect data for half size output

Correct data for halfsize

Creating plot(s) from D:\patel\v7\73052typ.dgn
IPENGINE, The specified MicroStation workspace "MDOT" (C:\Program Files\Bentley\Workspace\users\MDOT.ucf) was not found.
SFUSED, Settings file m:\plt\settings\design\b6_lj.set is being used.
Creating plot(s) from D:\patel\v7\73052title.dgn
SFUSED, Settings file m:\plt\settings\design\b6_lj.set is being used.
NOAREA, The -area qualifier was ignored.
- no elements matching the search criteria were found.
USEVIEW, A view will be used as the plot area.

If your preview looks too small or large you assign the wrong settings file. V7 files upgraded to V8 MUST still use a settings file from one of the design_J folders

The key to Iplot Org success is held in this information area. Look at what it is telling you.

Ready   Printer: \\mdot_plot\b6_lj   2 plots

Contact Engineering Support Staff
User Support: Harold Hovey – 517 335 2176   cell 517 204 3126
Application Support: Stephanie Doherty – 517 335 2336